Monoclonal Anti-Influenza Virus H1 Hemagglutinin (HA), A/California/04/2009 (H1N1)pdm09, Clone S-OIV-5H7 (produced *in vitro*)

Catalog No. NR-19866

This reagent is the property of the U.S. Government.

For research use only. Not for human use.

Contributor:

Daniel R. Perez, Ph.D., Associate Professor of Virology, Department of Veterinary Medicine, College of Agricultural and Natural Resources, University of Maryland, College Park, MD, USA

Manufacturer:

BEI Resources

Product Description:

Antibody Class: IgG2aκ

Mouse monoclonal antibody prepared against the H1 hemagglutinin (HA) protein of the A/California/04/2009 (H1N1)pdm09 strain of influenza virus was purified from clone S-OIV-5H7 hybridoma supernatant by protein G affinity chromatography. The B cell hybridoma was generated by the fusion of Sp2/0 mouse myeloma cells with splenocytes from BALB/c mice immunized by intraperitoneal injection with influenza virus A/California/04/2009 (H1N1)pdm09.[1]

HA is an antigenic glycoprotein found on the envelope of the influenza A virus. This protein binds to cellular receptors on the target cell and allows the influenza A virus to enter via endocytosis and membrane fusion. HA is an important target for drug and vaccine development.

Material Provided:

Each vial of NR-19866 contains approximately 100 µL of purified monoclonal antibody in PBS. The concentration, expressed as mg per mL, is shown on the Certificate of Analysis.

Packaging/Storage:

NR-19866 was packaged aseptically in screw-capped plastic vials and is provided frozen on dry ice. The product should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be avoided.

Functional Activity:

NR-19866 is reported to neutralize influenza A (H1N1)pdm09 viruses[2] and to function in hemagglutination inhibition tests.[1] In combination with NR-19864 and NR-19867, it can be used in a sandwich ELISA that distinguishes influenza A (H1N1)pdm09 viruses from other swine-origin H1 viruses as well as human seasonal H1N1 and H3N2 viruses.[3] Work performed at BEI Resources indicates that NR-19866 is also useful in indirect immunofluorescence assays. See Certificate of Analysis for details.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Monoclonal Anti-Influenza Virus H1 Hemagglutinin (HA), A/California/04/2009 (H1N1)pdm09, Clone S-OIV-5H7 (produced *in vitro*), NR-19866."

Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

Disclaimers:

You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at www.beiresources.org.

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC® nor the U.S. Government makes any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC® nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC® and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC®, their suppliers and contributors to BEI Resources are not liable for damages arising from the misidentification or misrepresentation of products.

Use Restrictions:

This material is distributed for internal research, non-commercial purposes only. This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals contemplating commercial use of the material, its products or its derivatives must contact the contributor to determine if a license is required. U.S. Government contractors may need a license before first commercial sale.

BEI Resources
www.beiresources.org

E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898

References:

1. Shao, H., et al. "A Novel Monoclonal Antibody Effective Against Lethal Challenge with Swine-Lineage and 2009 Pandemic H1N1 Influenza Viruses in Mice." Virology 417 (2011): 379-384. PubMed: 21774955.
2. D. R. Perez, personal communication.
3. Shao, H., et al. "A Monoclonal Antibody-Based ELISA for Differential Diagnosis of 2009 Pandemic H1N1." Influenza Other Respi. Viruses 5 Suppl. 1 (2011): 138-141. PubMed: 21761586.
4. Dawood, F. S., et al. "Emergence of a Novel Swine-Origin Influenza A (H1N1) Virus in Humans." N. Engl. J. Med. 360 (2009): 2605-2615. PubMed: 19423869. Erratum in N. Engl. J. Med. 361 (2009): 102.
5. Garten, R. J., et al. "Antigenic and Genetic Characteristics of Swine-Origin 2009 A(H1N1) Influenza Viruses Circulating in Humans." Science 325 (2009): 197-201. PubMed: 19465683.

Support Provided by NIAID

BEI Resources
www.beiresources.org

E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898